



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/790,916 | 03/02/2004 | Steve George Koch | 02-0011 | 1393 |
| 29293 | 7590 | 04/14/2005 | EXAMINER | |
| FREUDENBERG-NOK GENERAL PARTNERSHIP LEGAL DEPARTMENT 47690 EAST ANCHOR COURT PLYMOUTH, MI 48170-2455 | | | PATEL, VISHAL A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3676 | |

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|---------------------------------|---------------------|
| | 10/790,916 | KOCH, STEVE GEORGE |
| | Examiner Vishal Patel | Art Unit 3676 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 08 February 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-10 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 08 February 2005 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Drawings

1. The drawings were received on 2/8/05 and are approved by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 6-7 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueta (US. 5,951,021).

Regarding claim 1: Ueta discloses a gasket (gasket 10) comprising a first generally planar portion (planar portion of 11) having an inner perimeter (inner periphery forming holes 13) and an exterior perimeter (exterior perimeter of gasket 10), and having a first surface and a second surface (bottom surface of 11) on an opposite side from the first surface (top and bottom surfaces of 11), a seal bead (24') rising from the first surface (top surface of 10) a first predetermined height (height of bead), and being generally adjacent to and extending about the inner perimeter (the first bead 24 is adjacent to the inner perimeter 13), a fastener hole (14) extending through the first portion to the first surface to the second surface and located between the seal bead and the exterior perimeter (hole 14), a protruding feature (24 that is between two adjacent bolt holes 14) located between the fastener hole and the exterior perimeter, and rising from the first surface a second predetermined height that is about equal to or greater than the first predetermined

height. The first bead is made from a first material. The protruding feature having first and second terminating end portions so as not to circumscribe the fastener hole.

Regarding claim 2: A second seal bead (24' on the bottom surface) rising from the second surface a third predetermined height (height of the second seal bead), and being adjacent to and extending about the inner perimeter (the bead is adjacent to the inner perimeter). A second seal feature (24 on the bottom surface) located between the fastener hole and the exterior perimeter, and rising from the second surface a fourth predetermined height (height of the second seal feature) that is about equal to or greater than the third predetermined height.

Regarding claim 3: The gasket is *adapted to seal between separator plates in an individual cell of a fuel cell assembly (intended use)*.

Regarding claim 4: The gasket is *adapted to seal between a thermostat and a mating member in a cooling system of an engine (intended use)*.

Regarding claim 6: The seal bead is *molded to the carrier after the carrier is formed (method limitation, see column 15, lines 16-20)*.

Regarding claim 7: The first generally planar portion and the seal bead are molded integrally from an elastomeric material (where the planar portion 11 has an elastomeric material 12 and the bead is placed on this elastomeric material as seen in figure 4 and figure 4 also discloses all the limitations of claim 1).

Regarding claim 9: A second fastener hole (second of 14) extending through the first portion from the first surface to the second surface, spaced from the fastener hole and located between the seal bead and the exterior perimeter and a second seal feature (24 that encircles bolt

hole 14) located between the second fastener hole and the exterior and rising from the first surface the second predetermined height.

Regarding claim 10: A method of making a gasket comprising the steps of forming a first generally planar portion having an inner periphery and an exterior perimeter and having a first surface and a second surface on an opposite side from the first surface (top and bottom surface of 11), forming a seal bead so that the seal bead rises from the first surface a first predetermined height and is generally adjacent to and extending about the inner periphery (bead 24'), creating a fastener hole (14) extending through the first portion from the first surface to the second surface and located between the seal bead and the exterior perimeter and forming a protruding feature (24 that is between two adjacent bolt holes 14) between the fastener hole and the exterior perimeter and rising from the first surface a second predetermined height that is about equal to or greater than the first predetermined height.

The first generally planar portion is a carrier made of metal and the seal bead is made of an elastomeric material. The seal bead and the protruding feature are both made of elastomeric material.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueta in view of Yoshida et al (US. 5,938,208).

Ueta disclose the invention substantially as claimed above but fail to disclose the carrier is made of a polymeric material. Yoshida discloses a carrier to be made of either metal or plastic (column 10, lines 37-39). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the carrier of Ueta to be formed of polymeric material as taught by Yoshida, since having a carrier made of metal or plastic is considered to be art equivalent.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueta in view of Incoing (US. 4,625,979).

Ueta disclose the invention substantially as claimed above but fail to disclose a second seal bead adjacent to the seal bead. Incoing discloses a gasket having an inner periphery (periphery of 12), a seal bead adjacent the inner periphery (seal bead 22) and a second seal bead (one of 24) adjacent the seal bead. It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the planar portion of Ueta to have a second bead adjacent the seal bead as taught by Incoing, to provide extrusion resistant and to protect against destructive compression (column 1, lines 61 and column 2, line 10-11 of Incoing).

Response to Arguments

7. Applicant's arguments filed 2/8/05 have been fully considered but they are not persuasive.

Applicants' argument that Ueta fails to disclose a protruding feature that is spaced from the seal bead and which has first and second terminating end portions so as not to circumscribe the fastener hole is not persuasive because Ueta discloses a protruding feature (protruding feature

24 that is between two adjacent bolt holes) that is spaced from the seal bead and which has the first and second terminating end portions so as not to circumscribe the fastener hole (the protruding feature does not circumscribe the fastener hole).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ishikawa et al and Bruggemann teach to have a protruding feature that is spaced from the seal bead and that has first and second terminating end portions so as not to circumscribe a fastener hole.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (571) 272-7060. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford, can be reached on (571) 272-7049.

Art Unit: 3676

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to: 703-872-9326, for formal communications for entry before Final action; or, 703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP

April 6, 2005


ALISON PICKARD
Primary Patent Examiner
Tech. Center 3600

Title: Seal Feature to Prevent Bending
Serial No.: 10/790,916
Filing Date: March 2, 2004
Atty. Ref. No.: 02-0011

APPROVED, VP 4/6/05

1/4

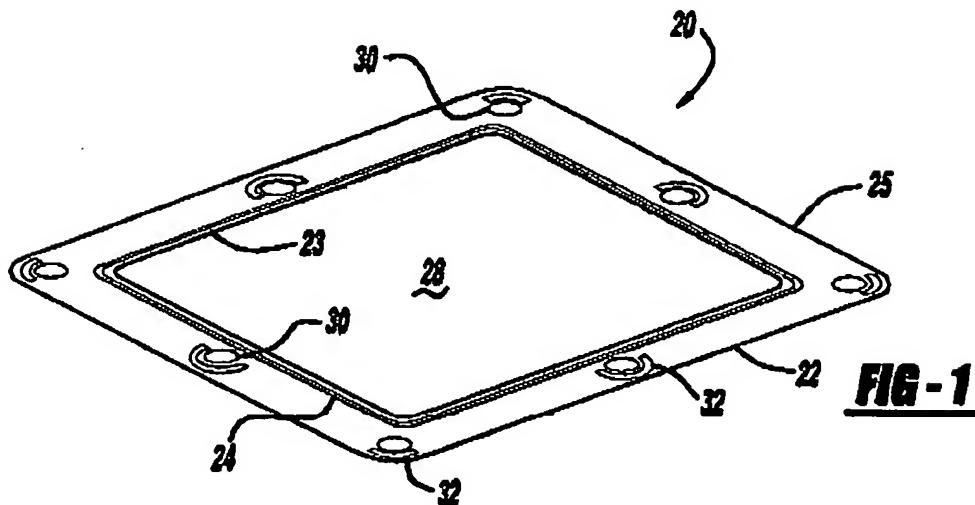


FIG-1

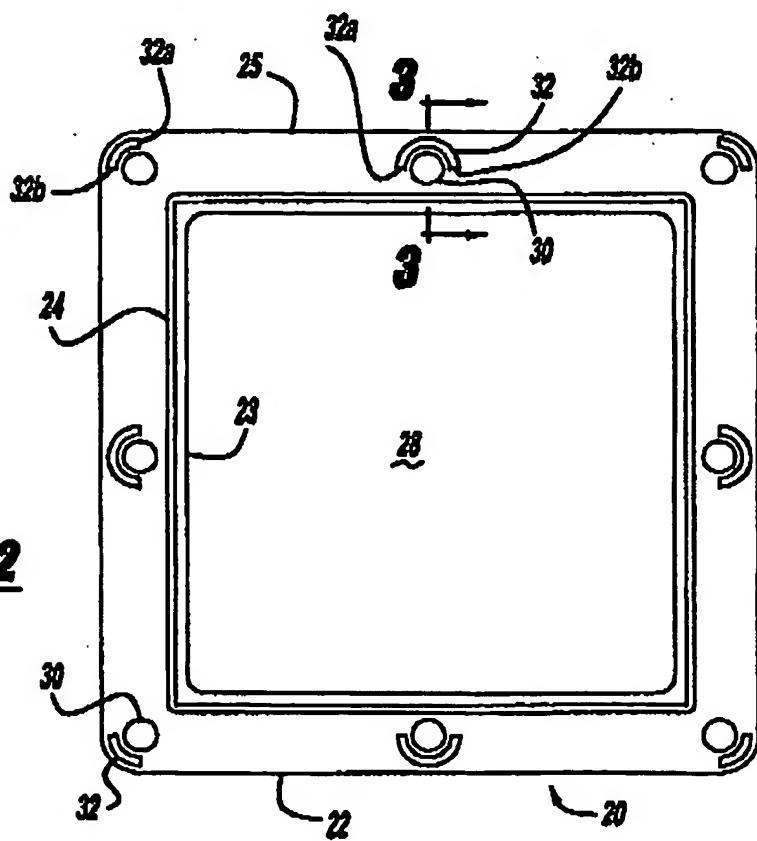


FIG-2